

Appl. No.: 09/849,551
Amdt. dated 04/18/2005
Reply to Office action of 12/16/04

Amendments to the Claims:

1. (Presently Amended) ~~An~~ A system apparatus for monitoring communication network usage comprising:

~~a gateway device operating at a network access point that executes~~ a usage monitoring module ~~operating at a network access point~~ that captures all request packets transmitted from a plurality of network users and all response packets transmitted from a plurality of network services; wherein the usage monitoring module filters the captured packets to extract usage monitoring data therefrom; and

a usage monitoring database in communication with said usage monitoring module that receives the filtered usage monitoring data from the usage monitoring module and stores the data associated with the user request packets and network response packets.

2. (Cancelled)

3. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring module filters the captured packets to extract network addresses and the usage monitoring database stores the network addresses.

4. (Presently Amended) The apparatus system of Claim 3, wherein the network addresses further comprise URLs (Uniform Resource Locators).

5. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring module filters the captured packets to extract usage monitoring data comprising at least one type of data chosen from the group consisting of user identification, network addresses, packet timestamp, referring network address, content-type, content length, response status code and user query string.

Appl. No.: 09/849,551
Amdt. dated 04/18/2005
Reply to Office action of 12/16/04

6. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring module performs navigational sequencing on captured packets so as to monitor a sequence of network addresses accessed by a user.

7. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring module performs a status code check on network service response packets to verify that a user has access to a requested network service address so that only data associated with accessible network services is stored in the usage monitoring database.

8. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring database further comprises a user request database that temporarily stores user request data prior to receiving a response from a requested network service.

9. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring database further comprises a temporary database that temporarily stores user monitoring information for network addresses that have only been accessed by a user no more than a predetermined minimum number of times.

10. (Presently Amended) The apparatus system of Claim 9, wherein the predetermined minimum number of times is one.

11. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring database further comprises a designated network address database that stores network addresses that have been designated for navigational sequencing.

12. (Presently Amended) The apparatus system of Claim 11, wherein the usage monitoring module is adapted to receive the network addresses that have been designated for navigational sequencing from a usage monitoring client.

Appl. No.: 09/849,551
Amndt. dated 04/18/2005
Reply to Office action of 12/16/04

13. (Presently Amended) The apparatus system of Claim 11, wherein the usage monitoring module defines the network addresses that have been designated for navigational sequencing based on the frequency that a user accesses the network address.

14. (Presently Amended) The apparatus system of Claim 1, wherein the usage monitoring database further comprises a primary database that stores the data associated with the user request packets and network response packets.

15. (Presently Amended) The apparatus system of Claim 1, further comprising an insertion server in communication with the usage monitoring database that provides network users with targeted information based on network user usage monitoring data.

16. (Presently Amended) The apparatus system of Claim 15, wherein the insertion server further comprises an advertisement insertion server that provides network users with targeted advertisements based on network user usage monitoring data.

17. (Presently Amended) The apparatus system of Claim 15, wherein the insertion server further comprises a survey insertion server that provides network users with targeted surveys based on network user usage monitoring data.

18. (Presently Amended) A method for providing usage monitoring in a communications network, the method comprising:

capturing all data packets being transmitted from a plurality of users and a plurality of network services at a gateway device disposed at a network point of access;
filtering the captured packets to provide for usage monitoring data at the gateway device; and

storing the usage monitoring data in a usage monitoring database.

19. (Cancelled)

Appl. No.: 09/849,551
Amdt. dated 04/18/2005
Reply to Office action of 12/16/04

20. (Original) The method of Claim 18, wherein filtering the captured packets to provide usage monitoring data further comprises filtering the captured packets to extract usage monitoring data comprising at least one type of data chosen from the group consisting of user identification, network addresses, packet timestamp, referring network address, content-type, content length, response status code and user query string.

21. (Original) The method of Claim 18, wherein storing the usage monitoring data in a usage monitoring database, further comprises storing the usage monitoring data in a temporary database prior to storing the usage monitoring data in a primary database.

22. (Presently Amended) A method for providing usage monitoring in a communications network, the method comprising:

capturing a transmitted data packet at a gateway device disposed at a network point of access;

determining, at the gateway device, if the transmitted data packet is a user generated request data packet; and

storing the transmitted data packet in a first database if the transmitted data packet is determined to be a user generated request data packet.

23. (Original) The method of Claim 22, wherein capturing a transmitted data packet at a network point of access further comprises capturing a transmitted data packet at a network gateway device.

24. (Original) The method of Claim 22, wherein storing the transmitted data packet in a first database if the transmitted data packet is determined to be a user generated request data packet further comprises storing the transmitted data packet in a first temporary database if the transmitted data packet is determined to be a user generated request data packet.

Appl. No.: 09/849,551
Amdt. dated 04/18/2005
Reply to Office action of 12/16/04

25. (Original) The method of Claim 22, further comprising:
transferring the transmitted data packet from the first database to a second
database if the transmitted data packet is matched with an accessible network service response
data packet.

26. (Original) The method of Claim 25, wherein the second database comprises a
temporary database that stores the transmitted data packet and the matched network service
response data packet if a determination is made that the user has not exceeded a predetermined
number of network service address accesses.

27. (Original) The method of Claim 25, wherein the second database comprises a
primary database that stores the transmitted data packet and the matched network service
response data packet if a determination is made that the user has exceeded a predetermined
number of network service address accesses.

28. (Original) The method of Claim 22, further comprising:
determining if the transmitted data packet exceeds a session flow limit so as to
warrant storage of the first transmitted data packet in the first database.

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

Appl. No.: 09/849,551
Amdt. dated 04/18/2005
Reply to Office action of 12/16/04

34. (Original) A method for navigational sequence usage monitoring in a communications network, the method comprising:
designating network addresses requiring navigational sequencing;
capturing, at a network point of access, a user transmitted data packet associated with a network address;
determining if the network address associated with the captured user transmitted data packet is a designated network address; and
storing a predetermined number of network addresses that are accessed proximate the designated network address as a navigational sequence if a determination is made that network address associated with the captured user transmitted data packet is a designated network address.

35. (Original) The method of Claim 34, wherein storing a predetermined number of network addresses that are accessed proximate the designated network address as a navigational sequence further comprises storing a predetermined number of network addresses that are accessed subsequent to the access of the designated network address as a navigational sequence.

36. (Original) The method of Claim 34, wherein storing a predetermined number of network addresses that are accessed proximate the designated network address as a navigational sequence further comprises storing a predetermined number of network addresses that are accessed prior to the access of the designated network address as a navigational sequence.

37. (Cancelled)

38. (Original) The method of Claim 34, wherein storing a predetermined number of network addresses that are accessed proximate the designated network address as a navigational sequence further comprises storing a predetermined number of network addresses

Appl. No.: 09/849,551
Amdt. dated 04/18/2005
Reply to Office action of 12/16/04

that are accessed subsequent to and prior to the access of the designated network address as a navigational sequence.

39. (Original) The method of Claim 34, further comprising:
determining if the user that sent the user transmitted data packet has accessed a designated network address in a predetermined number of previous network address accesses; and
adding the network address from the user transmitted data packet to a navigational sequencing list if a determination is made that the user has accessed a designated address in the predetermined number of previous network address accesses.

40. (Original) The method of Claim 34, further comprising storing the designated network address in a database.

41. (Original) The method of Claim 34, wherein designating network addresses requiring navigational sequencing is based upon determining the most frequently accessed network addresses.

42. (Original) The method of Claim 34, wherein designating network addresses requiring navigational sequencing is based upon network addresses accessed a predetermined number of times.

43. (Original) The method of Claim 34, wherein designating network addresses requiring navigational sequencing is based upon usage monitoring client selected network addresses.